

BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX					
Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parrel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.			
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant	:	M/s Tejus Consultants			
Contractor	:	Nagineni Muniswamyaidu Krishnamurthy.			
Date of Testing	:	03.11.2018			
Type of Mix	:	DBM			
Sample I/D	:	DBM-1			
DETERMINATION OF BITUMEN CONTENT					
Description		Trail 1	Trail 2		
1. Weight of Mixture before extraction, g		860	882		
2. Weight of Mixture after extraction, g		828	842		
3. Weight of Bitumen		32	40		
4. Weight of filter paper before extraction, g		2.00	2.00		
5. Weight of filter paper after extraction, g		4.00	4.00		
6. Weight of fines, g		2.00	2.00		
7. Weight of Bitumen & fines		34.00	42.00		
8. Bitumen content in %		3.95	4.76		
9. Average Bitumen content in %		4.36			
10. Minimum Bitumen content in %		4.50			
GRADATION FOR DBM AFTER EXTRACTION (As per MORT&H 500-10, Grading-2)					
Sample Location:	At site	Date of Sampling:	03.11.2018		
		Date of testing:	03.11.2018		
Type of material & Purpose:	DBM	Oven Dry Wt.(gms):	828		
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	51.0	51.0	6.16	93.84	90-100
19.00	135.0	186.0	22.46	77.54	71-95
13.20	122.0	308.0	37.20	62.80	56-80
4.750	145.0	453.0	54.71	45.29	38-54
2.360	115.0	568.0	68.60	31.40	28-42
0.300	140.0	708.0	85.51	14.49	7-21
0.075	80.0	788.0	95.17	4.83	2-8
Pan	51.0				
Total	839.0				

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

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BITUMEN CONTENT AND GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM MIX					
Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.			
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant	:	M/s Tejus Consultants			
Contractor	:	Nagineni Muniswamyndu Krishnamurthy.			
Date of Testing	:	03.11.2018			
Type of Mix	:	DBM			
Sample I/D	:	DBM-1			
DETERMINATION OF BITUMEN CONTENT					
Description		Trail 1	Trail 2		
1. Weight of Mixture before extraction, g		847	822		
2. Weight of Mixture after extraction, g		809	786		
3. Weight of Bitumen		38	36		
4. Weight of filter paper before extraction, g		2.00	2.00		
5. Weight of filter paper after extraction, g		4.00	4.00		
6. Weight of fines, g		2.00	2.00		
7. Weight of Bitumen & fines		40.00	38.00		
8. Bitumen content in %		4.72	4.62		
9. Average Bitumen content in %		4.67			
10. Minimum Bitumen content in %		4.50			
GRADATION FOR DBM AFTER EXTRACTION (As per MORT&H 500-10,Grading-2)					
Sample Location:	At site	Date of Sampling:	03.11.2018		
		Date of testing:	03.11.2018		
Type of material & Purpose:	DBM	Oven Dry Wt.(gms):	809		
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	48.0	48.0	5.93	94.07	90-100
19.00	132.0	180.0	22.25	77.75	71-95
13.20	121.0	301.0	37.21	62.79	56-80
4.750	141.0	442.0	54.64	45.36	38-54
2.360	118.0	560.0	69.22	30.78	28-42
0.300	145.0	705.0	87.14	12.86	7-21
0.075	85.0	790.0	97.65	2.35	2-8
Pan	51.0				
Total	841.0				

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Project Division
Velahanka Zone
Bangalore



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Name of Work	:	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthana 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.			
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE			
Consultant	:	M/s Tejus Consultants			
Contractor	:	Nagineni Muniswamyaidu Krishnamurthy.			
Date of Testing	:	03.11.2018			
Type of Mix	:	DBM			
Sample I/D	:	DBM-1			
DETERMINATION OF BITUMEN CONTENT					
Description		Trail 1	Trail 2		
1. Weight of Mixture before extraction, g		847	822		
2. Weight of Mixture after extraction, g		809	786		
3. Weight of Bitumen		38	36		
4. Weight of filter paper before extraction, g		2.00	2.00		
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8. Bitumen content in %		4.72	4.62		
9. Average Bitumen content in %		4.67			
10. Minimum Bitumen content in %		4.50			
GRADATION FOR DBM AFTER EXTRACTION (As per MORT&H 500-10,Grading-2)					
Sample Location:	At site	Date of Sampling:	03.11.2018		
		Date of testing:	03.11.2018		
Type of material & Purpose:	DBM	Oven Dry Wt.(gms):	809		
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0.0	0.0	0.00	100.00	100.00
26.50	48.0	48.0	5.93	94.07	90-100
19.00	132.0	180.0	22.25	77.75	71-95
13.20	121.0	301.0	37.21	62.79	56-80
4.750	141.0	442.0	54.64	45.36	38-54
2.360	118.0	560.0	69.22	30.78	28-42
0.300	145.0	705.0	87.14	12.86	7-21
0.075	85.0	790.0	97.65	2.35	2-8
Pan	51.0				
Total	841.0				

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Asst. Executive Engineer
Project Division
Velahanka Zone
Bangalore

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DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswamyndu Krishnamurthy.
Date of Testing :	03.11.2018
Type of Mix :	Tack coat
Sample I/D :	1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.780	0.741	0.760
Final weight of plate after application of tack Coat (c)	Kg	0.803	0.764	0.783
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	0.250 Kg/sq.m		

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Asst. Executive Engineer
Project Division
Velahanka Zone
Bangalore



DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :

1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.

Client :

BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant :

M/s Tejus Consultants

Contractor :

Nagineeni Muniswamyaidu Krishnamurthy

Date of Testing :

03.11.2018

Type of Mix :

Tack coat

Sample I/D :

1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.783	0.782	0.760
Final weight of plate after application of tack Coat (c)	Kg	0.806	0.805	0.783
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	0.250 Kg/sq.m		

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Project Division
Velahanka Zone
Bangalore

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AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

TEJUS
CONSULTANTS

Project 1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parrel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.

Client BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant M/s Tejus Consultants

Contractor Nagineni Muniswamyndu Krishnamurthy

Proposed Use BC **Date of Sampling** 05.11.2018

Sample Location At plant **Date of Testing** 05.11.2018

Sl. No.	Description		Test No.			Spec Limit (%)
			1	2	3	
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	430.00	454.00	426.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	305.00	360.00	336.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	125.00	94.00	90.00	
4	Aggregate Impact Value (%)	$(Wc/Wa)*100$	29.07	20.70	21.13	
5	Average Aggregate impact value	(%)	23.63			Max - 30 %

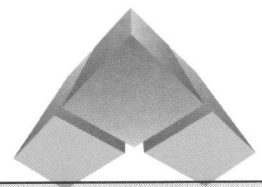
Remarks : ☒ Satisfactory / Not Satisfactory

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Asst. Executive Engineer
Project Division
Velahanka Zone
Bangalore





TEJUS

AGGREGATE IMPACT VALUE

(IS: 2386 Part - 4)

Project
1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.

Client BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant M/s Tejus Consultants

Contractor Nagineni Muniswamyaidu Krishnamurthy

Proposed Use BC **Date of Sampling** 05.11.2018

Sample Location At plant **Date of Testing** 05.11.2018

SL No.	Description		Test No.			Spec Limit (%)
			1	2	3	
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	382.00	360.00	345.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	286.00	260.00	255.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	96.00	100.00	90.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	25.13	27.78	26.09	
5	Average Aggregate impact value	(%)	26.33			Max - 30 %

Remarks : Satisfactory / Not Satisfactory

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Project Divisor
Velahanka Zone
Bangalore



FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project : 1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway pariel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division

Client : BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant : M/s Tejus Consultants

Contractor: Nagineni Muniswamyndu Krishnamurthy

Type of Material	BC	Proposed Use	BC
Sample Location	At plant	Date of Sampling	05.11.2018
		Date of Testing	05.11.2018

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	625	78	547	65
16.0	12.5	1210	110	1100	85
12.5	10.0	512	70	442	60
10.0	6.3	500	50	450	50
Total		2847	308	2539	260

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.82
Elongation Index(%):	10.24
Combined FI+EL (%)	21.06

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FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project : 1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division

Client : BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant : M/s Tejus Consultants

Contractor: Nagineni Muniswamyndu Krishnamurthy

Type of Material	BC	Proposed Use	BC
Sample Location	At plant	Date of Sampling	05.11.2018
		Date of Testing	05.11.2018

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	639	73	560	70
16.0	12.5	1229	112	1125	85
12.5	10.0	525	72	450	60
10.0	6.3	520	56	460	50
Total		2913	313	2595	265

Note: Minimum 200 Pcs should be taken on each fraction of test

	Flakiness Index(%):	10.74
	Elongation Index(%):	10.21
	Combined FI+EL (%)	20.96

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Asst. Executive Engineer
Project Division
Velahanka Zone
Bangalore

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TEJUS CONSULTANTS

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parrel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswamyndu Krishnamurthy
Date of Testing :	06.11.2018
Type of Mix :	BC
Sample I/D :	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	863	851
2. Weight of Mixture after extraction, g	815	807
3. Weight of Bitumen	48	44
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	1.40	1.70
7. Weight of Bitumen & fines	49.40	45.70
8. Bitumen content in %	5.72	5.37
9. Average Bitumen content in %	5.55	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION (As per MORT&H 500-18,Grading-2)

Sample Location:	At site		Date of Sampling:	06.11.2018	
Type of material & Purpose:	BC		Date of testing:	06.11.2018	
			Oven Dry Wt.(gms):	815.0	
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	100	100.0	12.27	87.73	79 - 100
9.50	65	165.0	20.25	79.75	71 - 95
4.75	135	300.0	36.81	63.19	53 - 71
2.360	100	400.0	49.08	50.92	42 - 58
1.180	85	485.0	59.51	40.49	34 - 48
0.600	85	570.0	69.94	30.06	26 - 38
0.300	45	615.0	75.46	24.54	18 - 28
0.150	60	675.0	82.82	17.18	12 - 20
0.075	75	750.0	92.02	7.98	4 - 10
Pan	65.0				
Total	815.0				

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Asst. Executive Engineer
Project Divisor
Velahanka Zone
Bangalore

BITUMEN CONTENT AND GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswamyndu Krishnamurthy
Date of Testing :	06.11.2018
Type of Mix :	BC
Sample I/D :	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	860	795
2. Weight of Mixture after extraction, g	810	754
3. Weight of Bitumen	50	41
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	1.40	1.70
7. Weight of Bitumen & fines	51.40	42.70
8. Bitumen content in %	5.98	5.37
9. Average Bitumen content in %	5.67	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION

(As per MORT&H 500-18,Grading-2)

Sample Location:	At site		Date of Sampling:	06.11.2018	
Type of material & Purpose:	BC		Date of testing:	06.11.2018	
			Oven Dry Wt.(gms):	810.0	
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	98	98.0	12.10	87.90	79 - 100
9.50	102	200.0	24.69	75.31	71 - 95
4.75	111	311.0	38.40	61.60	53 - 71
2.360	116	427.0	52.72	47.28	42 - 58
1.180	82	509.0	62.84	37.16	34 - 48
0.600	60	569.0	70.25	29.75	26 - 38
0.300	78	647.0	79.88	20.12	18 - 28
0.150	51	698.0	86.17	13.83	12 - 20
0.075	60	758.0	93.58	6.42	4 - 10
Pan	52.0				
Total	810.0				

Note:

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Authorised Signatory

Asst. Executive Engineer
Project Divisor.
Velahanka Zone
Bangalore

**BITUMEN CONTENT AND GRADATION DETERMINATION OF
BITUMINOUS CONCRETE MIX**

Name of Work :	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthangara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswamyndu Krishnamurthy
Date of Testing :	06.11.2018
Type of Mix :	BC
Sample I/D :	BC1

DETERMINATION OF BITUMEN CONTENT

Description	Trail 1	Trail 2
1. Weight of Mixture before extraction, g	875	850
2. Weight of Mixture after extraction, g	830	801
3. Weight of Bitumen	45	49
4. Weight of filter paper before extraction, g	2.00	2.00
5. Weight of filter paper after extraction, g	4.10	4.00
6. Weight of fines, g	1.40	1.70
7. Weight of Bitumen & fines	46.40	50.70
8. Bitumen content in %	5.30	5.96
9. Average Bitumen content in %	5.63	
10. Minimum Bitumen content in %	5.40	

GRADATION FOR BC AFTER EXTRACTION

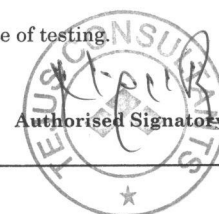
(As per MORT&H 500-18, Grading-2)

Sample Location:	At site		Date of Sampling:	06.11.2018	
Type of material & Purpose:	BC		Date of testing:	06.11.2018	
			Oven Dry Wt.(gms):	830.0	
IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
19.00	0	0	0.00	100.00	100.00
13.20	85	85.0	10.24	89.76	79 - 100
9.50	115	200.0	24.10	75.90	71 - 95
4.75	119	319.0	38.43	61.57	53 - 71
2.360	124	443.0	53.37	46.63	42 - 58
1.180	80	523.0	63.01	36.99	34 - 48
0.600	60	583.0	70.24	29.76	26 - 38
0.300	76	659.0	79.40	20.60	18 - 28
0.150	51	710.0	85.54	14.46	12 - 20
0.075	40	750.0	90.36	9.64	4 - 10
Pan	80.0				
Total	830.0				

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 Asst. Executive Engineer
 Project Division
 Velahanka Zone
 Bangalore



DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :

1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.

Client :

BRUHAT BANGALORE MAHANAGARA PALIKE

Consultant :

M/s Tejus Consultants

Contractor :

Nagineni Muniswamyaidu Krishnamurthy

Date of Testing :

06.11.2018

Type of Mix :

Tack coat

Sample I/D :

1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.760	0.742	0.755
Final weight of plate after application of tack Coat (c)	Kg	0.783	0.765	0.778
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	0.250 Kg/sq.m		

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Asst. Executive Engineer
Project Division
Velahanka Zone
Bangalore

Authorised Signatory



DETERMINATION OF RATE OF SPREAD TACK COAT

Name of Work :	1.Improvement of roads and drain at jakkur lake backside roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parallel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client :	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant :	M/s Tejus Consultants
Contractor :	Nagineni Muniswamyndu Krishnamurthy
Date of Testing :	06.11.2018
Type of Mix :	Tack coat
Sample I/D :	1

Determination	Unit	Test No		
		1	2	3
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.781	0.788	0.753
Final weight of plate after application of tack Coat (c)	Kg	0.804	0.811	0.776
Weight of tack Coat (d=c-b)	Kg	0.023	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.250	0.256	0.251
Average	Kg/sq.m	0.252		
Specified Limit	Kg/sq.m	0.250 Kg/sq.m		

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Project Division
Velahanka Zone
Bangalore

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Test Report on Cement

Project	1.Improvement of roads and drain at jakkur lake back side roads in ward no 05 byatarayanapura sub division 2. Providing street lights in ward no 05 surrounding areas byatarayanapura sub division 3. Improvement of roads and drain at royal enclave in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at srirampura railway parrel road to jakkur railway gate in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at srirampura cross road in ward no 05 byatarayanapura sub division 6. Improvement of roads and drain at bellahalli surrounding area in ward no 05 byatarayanapura sub division 7. Development of roads and drain at shivaramakaranthanagara 2nd stage cross roads in ward no 05 byatarayanapura sub division 8. Improvement of roads and drain at jakkur cross roads in ward no 05 byatarayanapura sub division.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Nagineni Muniswamyndu Krishnamurthy.
Sample ID	Cement
Date of Sample Tested	04.02.2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	38 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	355 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	3mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	25 % to 35

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